

## Practical Guidance for Delivery of Malaria in Pregnancy Interventions through Antenatal Care during the COVID-19 Pandemic

*Last updated: April 15, 2020*

Countries should prioritize essential health services during the COVID-19 outbreak.<sup>i</sup> All women should have access to safe, high-quality antenatal care (ANC), including malaria in pregnancy (MiP) services— insecticide-treated nets (ITNs),<sup>ii</sup> prompt and effective malaria case management, and, where applicable, intermittent preventive treatment (IPTp) with sulfadoxine-pyrimethamine (SP).<sup>i,iii</sup> Recognizing that at present, in many places, malaria is more common than COVID-19 and, if untreated, can cause high mortality, continuity of services and assuring protection of patients and health workers are key in settings where both malaria and COVID-19 occur. In cases where ANC services are disrupted, it is vital that countries consider alternative mechanisms that maintain global and national guidelines.



Adequate staff, sufficient amounts of essential commodities, and operating facilities for provision of routine ANC are critical. Wherever possible, pregnant women coming for ANC/deliveries should be in an area separate from suspected COVID-19 patients. Countries should consider each component of ANC and MiP services in the context of both national and global recommended COVID-19 safety precautions,<sup>iv</sup> including social distancing and following strict hand and respiratory hygiene. Any additional recommendations to protect ANC clients and health workers from COVID-19 transmission should be followed to the extent possible (e.g., not reusing cups for directly observed therapy, wearing masks<sup>v</sup>) while ensuring IPTp and ITN provision continue as proven, effective interventions. It is important to inform pregnant women of potential changes they may expect to see within the health facility (e.g., potentially longer lines, longer wait times, different entrances to separate them from suspected COVID-19 patients, handwashing stations) and encourage continued attendance at ANC during this period. While this document summarizes some key considerations, please note that more comprehensive guidance is available on World Health Organization's [COVID-19 website](https://www.who.int/emergencies/diseases/novel-coronavirus-2019) (<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>); further malaria-specific guidance in the context of COVID-19, including prevention of malaria, is accessible in the document [Tailoring malaria interventions in the COVID-19 response](https://www.who.int/malaria/publications/atoz/tailoring-malaria-interventions-covid-19.pdf?ua=1) (<https://www.who.int/malaria/publications/atoz/tailoring-malaria-interventions-covid-19.pdf?ua=1>).

*The following frequently asked questions and answers are pertinent to those providing health services, particularly ANC, in areas of sub-Saharan Africa with malaria transmission. This guidance is based on global recommendations. Countries should contextualize what is outlined based on their national guidelines and policies.*

## What are the symptoms of COVID-19?

- The most common symptoms are **fever, dry cough, and shortness of breath.**<sup>vi</sup>
- Some infected people do not develop any symptoms but can still pass the disease to others.

## Are pregnant women at increased risk of/from COVID-19?

- Pregnancy does not appear to increase susceptibility to COVID-19 infection or worsen its clinical course, but relevant evidence is still limited.<sup>vii–xi</sup>
- Severe manifestations of the coronavirus disease requiring critical care can occur. COVID-19 infection in pregnancy, especially for those who develop pneumonia, has been associated with preterm labor, pre-labor rupture of membranes, preterm birth, pre-eclampsia, and cesarean delivery for nonreassuring fetal status. However, COVID-19 infection by itself is not considered an indication for cesarean section.<sup>xii</sup>



**If you have fever, cough, or difficulty breathing, seek medical care early.**

Call before going to a health facility, and follow the directions of your local health authority.

## What steps can I take to prevent getting infected with COVID-19?

- **Wash your hands** frequently with soap and water for at least 20 seconds. If you do not have soap and water, use an **alcohol-based hand rub that contains at least 60% alcohol.**
- **Avoid touching your face** (eyes, nose, mouth), especially with unwashed hands.
- **Practice cough or sneeze etiquette:** Cough into your bent elbow or into a tissue, dispose of tissue immediately into a trashcan, and wash your hands with soap and water.
- **Maintain a distance** of at least 1 m (3 feet) from people who are not members of your household. Avoid gatherings of more than five people or as recommended in your country.

## How can providers, clients, and patients be protected from COVID-19 while at the health facility?

Pregnant women and women who have recently delivered—including those affected by COVID-19—should attend their routine care appointments.<sup>xii</sup>

### Triage

- Immediately on arrival at the facility, screen and triage patients for any symptoms of COVID-19, including fever, and ensure people who are well are separated from people who are ill.<sup>xiii,xiv</sup>
  - Pregnant women with fever should be tested for malaria and should receive appropriate case management for a positive rapid diagnostic test.
  - Providers must bear in mind that malaria can present along with COVID-19 and that pregnant women with fever should be prioritized for COVID-19 testing.<sup>xii</sup>
- Waiting areas should allow people to maintain at least 1 m (3 feet) distance between them<sup>vi</sup> and be preferably located in the open air or a well-ventilated area whenever possible.
- Any patient with symptoms of COVID-19 should be placed in isolation and given a medical mask as soon as they arrive at the facility to minimize the potential spread of the disease.<sup>v</sup>
- Where possible, have pregnant women coming for ANC or delivery enter through a different door than ill patients.

## Infection Prevention and Control/Hand Hygiene

- Add handwashing with soap or hand sanitizing stations at entrances to the health facility, and identify other key points in the facility to put hand hygiene stations for use by health care providers and clients.<sup>xv</sup>
- Check hand hygiene stations regularly to ensure they are stocked with sufficient soap and water or alcohol-based hand rub/hand sanitizer. A recipe for alcohol-based hand gel or hand sanitizer can be found here:  
[https://www.who.int/gpsc/5may/Guide to Local Production.pdf](https://www.who.int/gpsc/5may/Guide%20to%20Local%20Production.pdf).



- Wipe frequently touched items with recommended disinfectants, such as sodium hypochlorite (e.g., household bleach), hydrogen peroxide, or alcohol solutions of at least 60% alcohol.
- Where possible, have designated ANC providers who do not interact with ill patients.
- Consider having both providers and patients cover their noses and mouths;<sup>xvi</sup> ideally, providers will have either regular medical masks (for routine settings) or N95s/FFP2 masks (for settings with increased risk of aerosol exposure). Symptomatic patients should be given a medical mask to wear in the facility. If a medical mask is not available for the patient, cloth masks may provide some benefit.<sup>xv,xvii</sup>
- Encourage providers to model the behaviors of proper infection control (hand and respiratory hygiene), as pregnant women will be more likely to do the same.

## Social Distancing

- Whenever possible, maintain a distance of at least 1 m (3 feet) between people who do not live together in a house.<sup>vi</sup>
- Ensure healthy pregnant women are not waiting in the same area as sick or symptomatic patients.
- To facilitate distancing, **attempt to minimize the number of people congregating at the facility at any one time.**
  - Have companions wait outside while the pregnant woman is seen.
  - Ensure pregnant women wait outside or in a well-ventilated area until it is their turn to be seen.
  - Request pregnant women come at scheduled appointment times or in scheduled blocks to minimize the number of people waiting at a given time. For example, have a sign-up sheet available for subsequent visits to allow women to sign up for time slots or 2-hour windows.

## How can we ensure that pregnant women receive the minimum package of essential ANC services?

- Identify the minimum package of evidenced-based services required during the course of pregnancy.
- Consider ANC outreach services where possible.

- Care for ANC clients with chronic conditions or obstetric risks/complications should be individualized based on careful consideration of the risk-benefit profile of facility-based care.
- Monitor patient volumes to understand whether women are avoiding routine services.
- Include private-sector ANC providers and local midwifery, nursing and medical associations in strategies to promote safe ANC attendance.
- Messaging on the importance of continuing ANC may be needed to ensure women attend routine ANC and complications care as indicated. This should also include messaging around COVID-19 and protective measures taken for safe continuation of essential services.
- Provide information and education to address fears/rumors/misconceptions, highlight protective measures, and increase trust in safe continuity of services and availability of care and commodities.
- Include promotion of ANC through any messaging platforms being used for COVID-19-related public messaging, such as WhatsApp, text messaging, radio, television, and social media (visit <https://endmalaria.org/our-work/working-groups/social-and-behaviour-change-communication> and look for the document under "Related Materials.>").
- Include problem-solving for ANC service continuity issues in national COVID-19 task force and Maternal, Newborn, and Child Health Technical Working Group remote sessions/discussions.
- **For women presenting with no danger signs, all elements of ANC should be carried out as usual.**

## How can we ensure that pregnant women receive sufficient doses of IPTp-SP?

- Uninterrupted availability of quality-assured SP for IPTp and ITNs should be assured in all ANCs so that stock-outs do not disrupt MiP services. Proper quantification and supply planning are required. National guidelines may indicate an increased number of months of stock/buffer stock to keep on hand during the COVID-19 pandemic.



### Adjust directly observed therapy

- Both the health care provider and eligible **pregnant woman should wash their hands** thoroughly with soap and water **or use an alcohol-based hand rub.**
- Rules of social distancing should be observed as much as possible: **Maintain a distance** of at least 1 m (3 feet).
- **The health care provider should take the blister out of the box and leave the packet of three SP tablets on the table, then ask the pregnant woman to pick up the blister and remove the three tablets.** If using a large container of SP, the health care provider should use a clean spoon to dispense the three SP tablets into the woman's hand.
- The health care provider should observe the pregnant woman swallowing the SP tablets with clean water and a cup. Ensure the cup is not reused unless it has been properly cleaned with water and detergent.
- **The health care provider should complete** the necessary **records** of the interaction.

## How can we ensure that patients feel safe coming to the facilities?

- Continue to promote IPTp uptake at ANC, including emphasizing that malaria risk remains high; pregnant women should take SP and use an ITN to prevent malaria during pregnancy.
- Ensure that messaging to the community highlights the need to continue routine preventive care, such as ANC and childhood immunizations.
- Separating areas where patients come for routine services from those serving ill patients will help to reassure patients that their risk of being infected at the facility is low. This could involve use of an outside space, a physical separation, or, if the facility is small and does not have adequate space, reserving certain hours of the day for well visits.
- Promote the important role of community health workers to facilitate and encourage prompt care seeking.
- Develop/adapt messaging to describe what community members may expect to see from community health workers, as applicable under the given national guidelines:<sup>xviii</sup>
  - Use of gloves and masks
  - Compassionate, respectful, and caring services
  - Promotion of physical distancing in the community when providing care
  - Use of alternative greetings
- Providers should address concerns specific to COVID-19 that may deter or promote future ANC visits, including:
  - Potential rumors or misconceptions for malaria in the COVID-19 context
  - Importance of social distancing, handwashing, and respiratory hygiene
  - Risks associated with MiP and risks of not returning for additional ANC visits
  - Practices being employed by the health facility to minimize risks associated with COVID-19



Community health workers, community-based organizations, and traditional and religious leaders may highlight the importance of routine and preventative health care, including ANC, to community members.

### More information on safe delivery and breastfeeding can be found here:

<https://www.who.int/reproductivehealth/publications/emergencies/COVID-19-pregnancy-ipc-breastfeeding-infographics/en/>

<sup>i</sup> World Health Organization (WHO). 2020. *COVID-19: operational guidance for maintaining essential health services during an outbreak: interim guidance, 25 March 2020*. Geneva: WHO. <https://apps.who.int/iris/handle/10665/331561?locale-attribute=de&>

<sup>ii</sup> Provided to pregnant women during the first ANC visit.

<sup>iii</sup> WHO. 2020. Malaria and the COVID-19 pandemic. WHO website. <https://www.who.int/news-room/q-a-detail/malaria-and-the-covid-19-pandemic>.

<sup>iv</sup> WHO. 2020. Country & Technical Guidance - Coronavirus disease (COVID-19). WHO website. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance>.

<sup>v</sup> WHO. 2020. *Advice on the use of masks in the context of COVID-19*. Geneva: WHO. [https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-\(2019-ncov\)-outbreak](https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak).

<sup>vi</sup> WHO. 2020. Q&A on coronaviruses (COVID-19). WHO website. <https://www.who.int/news-room/q-a-detail/q-a-coronaviruses>. [April 8.]

<sup>vii</sup> Wu Z, McGoogan JM. 2020. Characteristics of and Important Lessons From the Coronavirus Disease 2019 (COVID-19) Outbreak in China: Summary of a Report of 72 314 Cases From the Chinese Center for Disease Control and Prevention. *JAMA*. doi: 10.1001/jama.2020.2648.

<sup>viii</sup> Liu D, Li L, Wu X, Zheng D, Wang J, Yang L, Zheng C. 2020. Pregnancy and Perinatal Outcomes of Women With Coronavirus Disease (COVID-19) Pneumonia: A Preliminary Analysis. *AJR Am J Roentgenol*. Mar 18:1-6. doi: 10.2214/AJR.20.23072.

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- <sup>ix</sup> Breslin N, Baptiste C, Gyamfi-Bannerman C, et al. 2020. COVID-19 infection among asymptomatic and symptomatic pregnant women: Two weeks of confirmed presentations to an affiliated pair of New York City hospitals. *Am J Obstet Gynecol MFM*. Apr 9: 100118. doi: 10.1016/j.ajogmf.2020.100118.
- <sup>x</sup> Garg S, Kim L, Whitaker M, et al. 2020. Hospitalization Rates and Characteristics of Patients Hospitalized with Laboratory-Confirmed Coronavirus Disease 2019 — COVID-NET, 14 States, March 1–30, 2020. *MMWR Morb Mortal Wkly Rep*.
- <sup>xi</sup> WHO. 2020. *Clinical management of severe acute respiratory infection when COVID-19 is suspected*. Geneva: WHO. [https://www.who.int/publications-detail/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-\(ncov\)-infection-is-suspected](https://www.who.int/publications-detail/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-(ncov)-infection-is-suspected).
- <sup>xii</sup> WHO. 2020. Q&A on COVID-19, pregnancy, childbirth and breastfeeding. WHO website. <https://www.who.int/news-room/q-a-detail/q-a-on-covid-19-pregnancy-childbirth-and-breastfeeding>. [March 18.]
- <sup>xiii</sup> WHO. 2020. *Infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected*. Geneva: WHO. [https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-\(ncov\)-infection-is-suspected-20200125](https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125).
- <sup>xiv</sup> WHO. 2020. *Operational considerations for case management of COVID-19 in health facility and community*. Geneva: WHO. <https://www.who.int/publications-detail/operational-considerations-for-case-management-of-covid-19-in-health-facility-and-community>.
- <sup>xv</sup> WHO. 2020. *Recommendations to Member States to improve hand hygiene practices to help prevent the transmission of the COVID-19 virus*. Geneva: WHO. <https://www.who.int/publications-detail/recommendations-to-member-states-to-improve-hand-hygiene-practices-to-help-prevent-the-transmission-of-the-covid-19-virus>.
- <sup>xvi</sup> Centers for Disease Control and Prevention (CDC). 2020. Recommendation Regarding the Use of Cloth Face Coverings, Especially in Areas of Significant Community-Based Transmission. CDC website. <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover.html>. [April 3.]
- <sup>xvii</sup> WHO. 2020. Coronavirus disease (COVID-19) advice for the public: When and how to use masks. WHO website. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/when-and-how-to-use-masks>.
- <sup>xviii</sup> RBM Partnership to End Malaria. 2020. *Malaria Social and Behaviour Change Program Guidance in the Context of COVID19 Pandemic*.